

IPOMOEA SORORIA (CONVOLVULACEAE), A NEW SPECIES FROM YUCATAN, MEXICO

Daniel F. Austin

Arizona-Sonora Desert
Museum

2021 N. Kinney Road
Tucson, AZ 85743, U.S.A.

Jose Luis Tapia Muñoz

Centro de Investigacion Cientifica
de Yucatan A. C. (CICY)

Calle 43 No. 130, Colonia
Chuburná de Hidalgo, 97200 Mérida
Yucatán, MÉXICO

ABSTRACT

Ipomoea sororia, a new species in *Ipomoea* section *Leptocallis* is described from the Yucatan Peninsula of Mexico. This species, apparently endemic to a small region of low deciduous forest in the NW of the peninsula, is similar to the more widespread species *I. ternifolia* and *I. costellata*. The new species differs from those in having cordate sepal bases and three rows of largely reflexed excrescences on the outer sepals.

RESUMEN

Se describe *Ipomoea sororia*, una nueva especie de *Ipomoea* sección *Leptocallis* para la Península de Yucatán, México. Esta especie, aparentemente endémica de una pequeña región de selva baja decidua, en la zona NW de la península, es similar a las especies de más amplia distribución, *I. ternifolia* e *I. costellata* de la costa pacífica. La nueva especie se diferencia por presentar los sépalos con las bases cordadas y tres hileras de crestas reflejas en los sépalos exteriores.

During preparation of the treatment of the Convolvulaceae for *Flora Mesoamericana* (Austin et al., in prep.), and collaboration on the *Flora Ilustrada de la Peninsula de Yucatán* (Austin and Tapia, in press), collections were found that match no known species. These specimens are similar to those in sect. *Leptocallis* (McDonald 1995), with which they are thought to be allied. Comparison with the keys in McDonald's paper, and with available material in CICY and MEXU make it clear that the plants do not fall within the known variability of species from Mexico and Mesoamerica. Therefore, we describe the new species.

Ipomoea sororia D.F. Austin & J.L. Tapia, sp. nov. (**Fig. 1**). TYPE: MÉXICO. YUCATÁN: Mpio. Dzemul, al S del entronque a las ruinas Xtampú. Selva baja caudicifolia con Cactáceas columnares, 9 Nov 2000, Tapia & Carnevali 1120 (HOLOTYPE: CICY; ISOTYPES: F, FAU, K, MEXU, MO, NY, UCAM, XAL).

Ipomoea ternifoliae et *I. costellatae* primo adspectu maxime semile, sed sepalis externis seriebus tribus rugarum vel bullarum vel fere papillarum et praesertim cordatis basibus distinguitur.

Twining herbs, annuals with fibrous root-systems, stems climbing or prostrate, to ca 2 m, glabrous or glabrescent. Leaves pedately 5-7-lobed, more or less reniform to orbicular in outline, 2.5-5 cm long, 3-7 cm wide, the lobes entire, or the

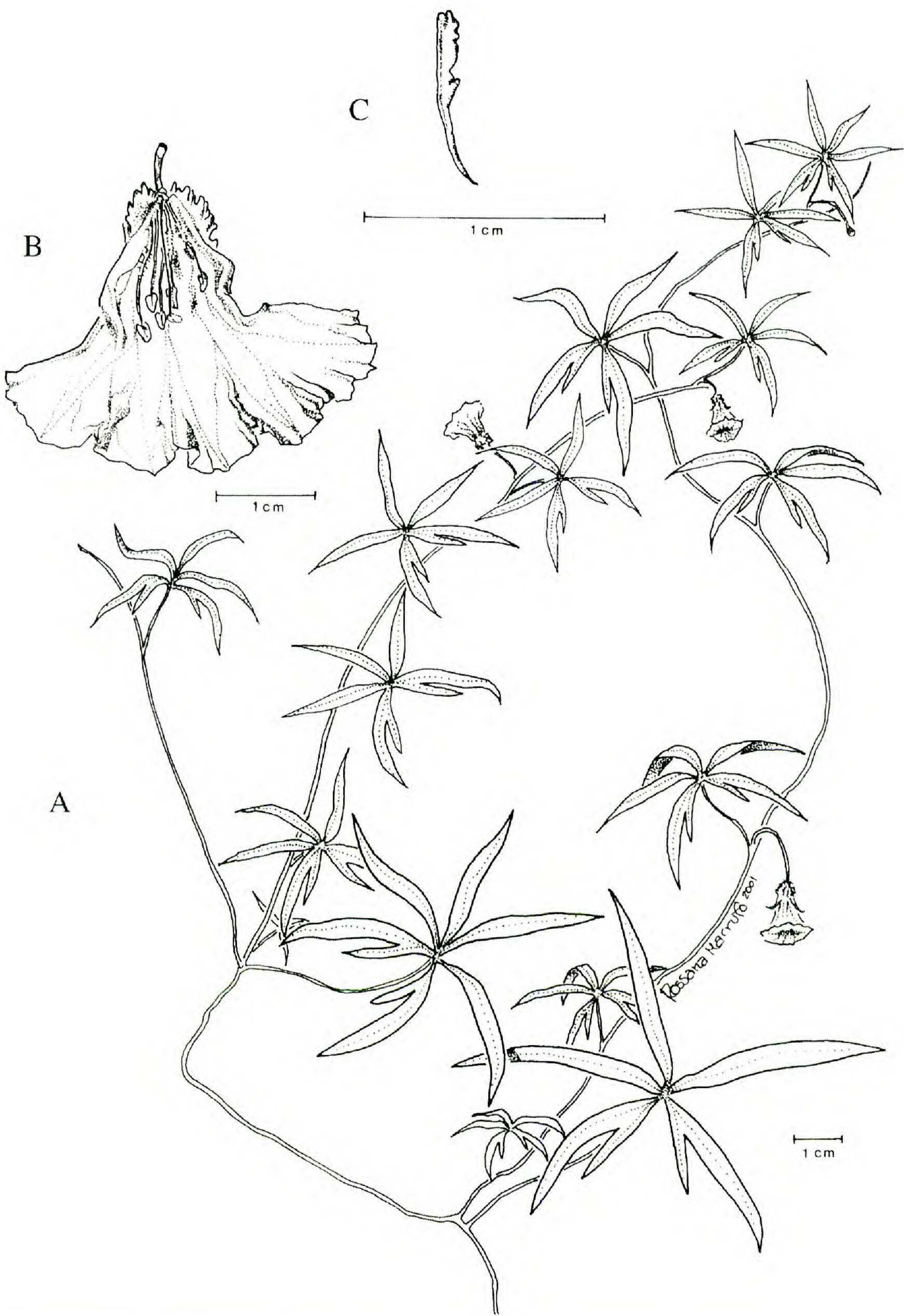


FIG. 1. *Ipomoea sororia* D.F. Austin & J.L. Tapia, sp. nov. A. General habit, B. Open flower during anthesis, C. Outer sepal in lateral view. Based on J.L. Tapia & G. Carnevali 1120 (CICY, F, FAU, K, MEXU, MO, NY, UCAM, XAL). Drawing by Rossana Marrufo (CICY).

basal lobes with 1–3 lobes, glabrous, the base cordate, the apex broadly obtuse to rounded, the petioles 2–3 cm long. Inflorescences cymose but mostly solitary on peduncles 0.5–3.5 cm long, the pedicels 4–5 mm long, the bracteoles lanceolate, 0.75–2 mm long. Flowers 1(–2); sepals more or less equal or the outer somewhat shorter, 5–8 mm long, the outer ovate, basally cordate, with a lanceolate terminal acumen 1–2 mm long, reflexed, glabrous, mostly with 3 rows of rugae or bullae to almost papillae, the inner 6–8 mm, ovate, long acuminate, glabrous, borders hyaline, the acumen 3–4 mm long, glabrous; corolla 2–2.5 cm, funnelform, the limb white, the limb faintly 5-lobed, the throat lavender; the stamens included, unequal, 8–12 mm long, white, the filaments basally glandular-pubescent, inserted 4 mm above the base of the corolla tube, anthers erect, dithecal; the ovary lobate, 1 mm diameter, glabrous, the style white, glabrous, 6–8 mm long, the stigma in contact with stamens, capitate, bilobate, papillose surface. Fruits capsular, ovoid, 5 mm long, 4 mm wide, 4-valvate, the 2-locules well-delimited and somewhat 2-lobed, tan to brown, the valves membranaceous, glabrous; seeds not seen.

PARATYPES: MÉXICO. Campeche: Mpio. Campeche, 2 km Noroeste de Chiná, 10°47'15"N, 90°31'50"W. alt. 08 msnm, Selva baja subcaducifolia secundaria, suelo negro, inundable, 23 Nov 1998, C. Gutiérrez B. 6056 (CICY, MEXU, UCAM); Mpio. Calkini, 10 km al O de Tankuche, sobre el camino a Punta Arenas. Zona transicional entre selva baja y manglar con *Hematoxylum*, 1 Dec 1988, Cabrera & Cabrera 15304 (MEXU).

Etymology.—The epithet is based on Latin *soror*, -is, meaning sister. This is intended to draw attention to the similarity between this species and *Ipomoea ternifolia*.

Distribution.—México. Campeche, Yucatan. 8–10 m. Flowering November–December. Endemic to southern Mexico.

This species is noted as growing with mangroves and *Hematoxylum* in one site, and in others with *Bursera simaruba*, *Metopium brownei*, *Gymnopodium floribundum*, *Croton* spp., *Pterocereus gaumeri*, *Cienfugosia yucatanensis*, *Bakeridesia gaumeri*, *Myrmecophila christinae* and *Tillandsia fasciculata*. Apparently, the species is tolerant of the drier deciduous forest and inundation where this habitat approaches mangroves. Soils are recorded as litosols mixed with rendsins, shallow and with outcrops of calcareous rocks, flooded during the rainy season (*suelo negro somero muy pedregoso, suelo negro inundable*).

Ipomoea sororia is similar to not only *I. ternifolia*, but also other species in sect. *Leptocallis* (G. Don) J.A. McDonald (1995). The cordate basal portion and ornamentation on the sepals clearly distinguish *I. sororia* from *I. ternifolia*. Habitat will distinguish *I. sororia* from all related species except *I. ternifolia* and *I. costellata*, which share the lowland deciduous communities.

In McDonald's (1995) key these plants lead to couplet No. 6, where the corollas are shorter than either choice, but longer than 1 cm. Indeed, the variation

within *I. plummerae* makes it similar, but *I. sororia* is prostrate, not erect. Then, these plants fall between the traits at couplet No. 7, which leads on one hand to *I. perpartita* and on the other to *I. plummerae* and *I. ternifolia*. *Ipomoea sororia* has the pedatisect segments, but the corolla tube is darker than the limb of *I. perpartita*. Moreover, the leaves are not twice dissected as in *I. perpartita*.

REFERENCES

- AUSTIN, D.F., J.A. McDONALD, and G. MURGUIA S. (in preparation). Convolvulaceae. In: Davidse, G., M. Sousa S. and A.O. Chater, eds. Flora Mesoamericana.
- AUSTIN, D.F. and J.L. TAPIA M. (in press). *Ipomoea*. In: Flora Ilustrada de la Península de Yucatán.
- McDONALD, J.A. 1995. Revision of *Ipomoea* section *Leptocallis* (Convolvulaceae). Harvard Pap. Bot. 6:97–122.